WHAT IS CLAIMED IS:

1. A two-dimensional scanning apparatus comprising:

deflecting means for two-dimensionally deflecting a light beam from a light source; and

an optical system for directing the light beam deflected by said deflecting means on a surface to be scanned, said scanning optical system including an optical element which has no reflecting surface having optical power, and is tilted and/or shifted.

2. A two-dimensional scanning apparatus according to claim 1, wherein the light beam from the light source is adapted to be obliquely incident on a reflecting surface of said deflecting means, a one-dimensional direction of the two-dimensional directions is adapted to correspond to a direction along a plane of incidence plane of the oblique incidence, and said optical element is tilted about an axis perpendicular to the plane of incidence toward a side on which the light beam is obliquely incident on said deflecting means.

3. A two-dimensional scanning apparatus according to claim 1, wherein in at least a one-dimensional direction of the two-dimensional directions, the light beam from the light source is

adapted to be obliquely incident relative to a central axis of a deflection range of the light beam deflected by said deflecting means, and said optical element is tilted in the one-dimensional direction toward a side on which the light beam is obliquely incident.

4. A two-dimensional scanning apparatus according to claim 2, wherein said optical element is shifted in the one-dimensional direction.

5. A two-dimensional scanning apparatus according to claim 2, wherein said optical system includes a second optical element shifted in the one-dimensional direction, and said second optical element has no reflecting surface having optical power.

6. A two-dimensional scanning apparatus according to any one of claims 1 to 5, wherein distortion on the surface to be scanned is optically corrected by said optical system, or is corrected by a combination of optical correction by said optical system, and electrical correction by a circuit for controlling said deflecting means.

7. An image displaying apparatus comprising:

a two-dimensional scanning apparatus recited in any one of claims 1 to 5; and

means for forming an image on the surface to be scanned, using said two-dimensional scanning apparatus.

8. An image displaying apparatus according to claim 7, further comprising light source means for supplying three colour light beams, such as red, green and blue light beams, and wherein a colour image is formed on the surface to be scanned by causing the three colour light beams to be incident on said deflecting means sequentially and/or simultaneously.

9. A two-dimensional scanning apparatus comprising:

deflecting means for two-dimensionally deflecting a light beam from a light source; and

a scanning optical system for directing the light beam deflected by said deflecting means to a surface to be scanned, said scanning optical system including an optical surface which is tilted at an angle larger than a maximum angle of view relative to a central axis of a two-dimensional deflection range of the light beam deflected by said deflecting means.

10. A two-dimensional scanning apparatus comprising:

deflecting means for two-dimensionally deflecting a light beam from a light source; and

a scanning optical system for directing the light beam deflected by said deflecting means to a surface to be scanned, said scanning optical system including an optical surface which is tilted relative to a central axis of a two-dimensional deflection range of the light beam deflected by said deflecting means, and the surface to be scanned being tilted in the same direction as said tilt optical surface.

11. A two-dimensional scanning apparatus according to claim 9 or 10, wherein an optical element including said optical surface is tilted at an angle larger than a maximum angle of view relative to the central axis of the two-dimensional deflection range.

12. A two-dimensional scanning apparatus according to claim 9 or 10, wherein the tilt direction of said optical surface is adapted to correspond to a first one-dimensional direction of the two-dimensional directions.

13. A two-dimensional scanning apparatus

according to claim 9 or 10, wherein the light beam from said light source is adapted to be incident obliquely relative to at least one of two deflection axes of said deflecting means.

14. A two-dimensional scanning apparatus according to claim 9 or 10, wherein the surface to be scanned is tilted in the same direction as said optical surface tilted relative to the central axis of the two-dimensional deflection range.

15. A two-dimensional scanning apparatus according to claim 9 or 10, wherein said tilted optical surface is shifted relative to the central axis of the two-dimensional deflection range.

16. A two-dimensional scanning apparatus according to claim 9 or 10, wherein where a normal at a surface vertex of said tilted optical surface is extended toward a side of light emergence, said optical surface is shifted relative to the central axis of the two-dimensional deflection range toward a side of extension of the normal.

17. A two-dimensional scanning apparatus according to claim 9 or 10, wherein a surface vertex of said tilted optical surface is located outside the

two-dimensional deflection range, and only a portion of said optical surface on one side of a center of coordinates of said optical surface is used to guide the light beam deflected by said deflecting means to the surface to be scanned.

18. A two-dimensional scanning apparatus according to claim 9 or 10, wherein a plurality of said tilted optical surfaces are provided, and tilt amounts of said optical surfaces are different from each other.

19. A two-dimensional scanning apparatus according to claim 9 or 10, wherein a plurality of said tilted optical surfaces are provided, and a tilt angle of said optical surface disposed on a side of the surface to be scanned relative to the central axis of the two-dimensional deflection range is larger than a tilt angle of said optical surface disposed on a side of said deflecting means relative to the central axis of the two-dimensional deflection range.

20. A two-dimensional scanning apparatus according to claim 9 or 10, wherein a plurality of said tilted optical surfaces are provided, and said optical surfaces are shifted relative to the central

axis of the two-dimensional deflection range by shift amounts different from each other, respectively.

21. A two-dimensional scanning apparatus according to claim 9 or 10, wherein a plurality of said tilted optical surfaces are provided, and a surface vertex of said optical surface on a side of the surface to be scanned is more away from the central axis of the two-dimensional deflection range than a normal at a surface vertex of said optical surface on a side of said deflecting means.

22. A two-dimensional scanning apparatus according to claim 9 or 10, wherein said tilted optical surface comprises an anamorphic surface.

23. A two-dimensional scanning apparatus according to claim 9 or 10, wherein said tilted optical surface comprises a rotational asymmetrical surface.

24. A two-dimensional scanning apparatus according to claim 9 or 10, wherein said tilted optical element comprises a meniscus lens whose concave surface faces a side of said deflecting means.

25. A two-dimensional scanning apparatus

according to claim 9 or 10, wherein said tilted optical surface is disposed on a side closest to the scanned surface in said scanning optical system.

26. A two-dimensional scanning apparatus according to claim 9 or 10, wherein said tilted optical element comprises a transmission optical element having no reflecting surface.

27. A two-dimensional scanning apparatus according to claim 9 or 10, wherein said tilted optical element is formed of plastic material.

28. A two-dimensional scanning apparatus according to claim 9 or 10, wherein all portions on said tilted optical surface used to guide the light beam deflected by said deflecting means to the surface to be scanned are tilted at angles larger than a maximum angle of view relative to the central axis of the two-dimensional deflection range.

29. A two-dimensional scanning apparatus according to claim 9 or 10, wherein there are provided a plurality of said tilted optical elements tilted at angles larger than a maximum angle of view relative to the central axis of the two-dimensional deflection range.

30. A two-dimensional scanning apparatus according to claim 9 or 10, wherein an angle of view with respect to a first one-dimensional direction of the two-dimensional directions is narrower than an angle of view with respect to a second one-dimensional direction perpendicular to the first one-dimensional direction.

31. A two-dimensional scanning apparatus according to claim 9 or 10, wherein an angle of view with respect to a first one-dimensional direction of the two-dimensional directions is wider than an angle of view with respect to a second one-dimensional direction perpendicular to the first one-dimensional direction.

32. A two-dimensional scanning apparatus according to claim 9 or 10, wherein the light beam incident on said deflecting means is adapted to be a convergent light beam.

33. A two-dimensional scanning apparatus according to claim 9 or 10, wherein distortion on the surface to be scanned is optically corrected by said scanning optical system, or is corrected by a combination of optical correction by said optical system, and electrical correction by a circuit for

controlling said deflecting means.

34. An image displaying apparatus comprising:

a two-dimensional scanning apparatus recited in any one of claims 9 to 33; and

means for forming an image on the surface to be scanned, using said two-dimensional scanning apparatus.

35. An image displaying apparatus according to claim 34, further comprising light source means for supplying three colour light beams, such as red, green and blue light beams, and wherein a colour image is formed on the surface to be scanned by causing the three colour light beams to be incident on said deflecting means sequentially and/or simultaneously.